

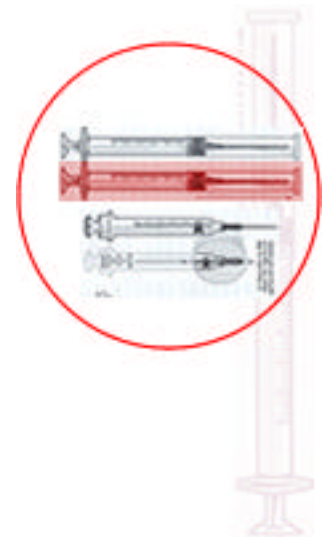
NIOSH recommends that health care facilities use safer medical devices to protect workers from needlestick and other sharps injuries. Since the passage of the Needlestick Safety and Prevention Act in 2000 and the subsequent revision of the OSHA Bloodborne Pathogen Standard, all health care facilities are required to use safer medical devices.



SAFER MEDICAL DEVICE IMPLEMENTATION IN HEALTH CARE FACILITIES

SHARING LESSONS LEARNED

NIOSH has asked a small number of health care facilities to share their experiences on how they implemented safer medical devices in their settings. These facilities have agreed to describe how each step was accomplished, and also to discuss the barriers they encountered and how they were resolved, and most importantly, lessons learned.



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Phase 1: Form a Sharps Injury prevention Team

Facility Description:

Large private, not-for-profit, academic medical center that includes over 950 hospital beds, twelve family health centers, two ambulatory surgical centers, a research institute and an education foundation. Over 2,000,000 outpatient visits and more than 50,000 hospital admissions each year. Facility employs over 1000 physicians representing approximately 120 specialties and subspecialties, approximately 3,000 nurses and a wide range of technical and support staff. Total number of employees is approximately 13,000.

The institution's Safety Committee is aware of legislative activities that would compel introduction of sharps safety devices. An initial task force identified issues related to sharps safety, safety devices and employee practices. This task force identified the need for a working sub-committee (sharps injury prevention team) to be formed.

Due to the size and complexity of the institution it was difficult to know all the areas where sharps safety was an issue. It was decided to elicit team members from all clinical areas with any potential for bloodborne pathogen exposures. Specifically, the following department chairs were approached to submit team representatives:

Division of Nursing: Advanced Practice Nurses Ambulatory Cancer Center Cardiac Education Emergency Department Home Care Intensive Care Medical Pediatric & Maternal Child Post Anesthesia Care Subacute Services Surgical Surgical Services	Other departments: Anesthesia Cardiac Catheterization Dentistry Dialysis Eye Institute Infection Control Laboratory Medicine Phlebotomy Medical Education Occupational Health Pediatrics Pharmacy Purchasing	Radiology Research Department Respiratory Therapy Safety Department Surgical Support Services
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Department chairs were asked to send both managerial and non-managerial staff who would represent the diverse needs within their departments. The number of representatives was not limited. Department chairs were directed to an Intranet web site which was established to educate them about the goals and functions of the team (see addendum #1). Non-managerial staff participation was strongly encouraged. The response was not overwhelming.

The following table outlines the team membership and degree of participation in 2001.

Area Represented	Position of area representative	Degree of participation*
Ambulatory Nursing	Nurse Manager - #1	Partial

Area Represented	Position of area representative	Degree of participation*
Ambulatory Nursing	Nurse Manager - #2	Partial
Anesthesia	Anesthesiologist	Very minimal
Birthing Services	Assistant Nurse Manager	Minimal
Cancer Nursing	Nurse Manager	Full
Cardiac Catheterization	Staff Nurse - Front line HCW	Full
Cardiac/ Emergency Nursing	Clinical Nurse Specialist	Full
Cardiac Nursing	Assistant Nurse Manager	Minimal
Colorectal Surgery	Nurse Clinician	Minimal
Emergency Department	Nurse Manager # 1	Full
Emergency Department	Nurse Manager # 2	Partial
Eye Institute	Staff Nurse - Front line HCW	Full
Family Health Centers	Nurse Manager	None
General Anesthesia	Assistant - Front line HCW	Full
Infection Control	Infection Control Practitioner #1(co-chair)	Full
Infection Control	Infection Control Practitioner #2	Full
Laboratory Medicine	Phlebotomy Lab Manager	Full
Laboratory Medicine	Manager	Full
Medical Nursing	Manager	Full
Nursing Education	Education Nurse Specialist	Full
Pediatric Intensive Care	Medical Director	Very minimal
Pharmacy	Sterile Product Manager	None
Purchasing	Purchasing	Ad hoc
Radiology	Clinical Coordinator	Partial
Respiratory Therapy	Education Coordinator / therapist - Front line HCW	Full
Respiratory Therapy – Emergency Department	Therapist - Front line HCW	Full
Safety	Safety Director	Ad Hoc
Same Day Surgery	Staff Nurse - Front line HCW	Full
Subacute Services	Manager	Partial
Subacute Services	Clinical Nurse Specialist	Partial
Surgical Nursing	Staff Nurse – Front line HCW	Full
*Degree of participation: Very minimal ~ 10% of meetings attended Minimal ~ 20% of meetings attended Partial ~ 50% of meetings attended Full ~ 80% of meetings attended		

The Safety Committee Chair appointed the team leader. The leader is a Nurse Epidemiologist / Infection Control Practitioner. Educational experiences include a Bachelor of Science degree in Biology and Nursing along with training and certification in Infection Control. Past clinical experiences include adult, pediatric, and intensive care nursing. This individual is also responsible for the analysis and reporting of the institution's exposure data. The team leader had no experience with product evaluation. The institution did not have a product evaluation committee in place at that time.

It soon became apparent that there were two major stages to sharps safety introduction. The first stage, the evaluation of products, followed by the second stage of coordinating the implementation of the selected product to the institution. Both stages are equally important and both are very time consuming. The volume of work was overwhelming. A co-leader was selected from the Department of Nursing Education to assist with the implementation phase. This trained educator was very familiar and sensitive to the needs of the Division of Nursing and had extensive previous experience in the introduction of new technology to a large group of health professionals.

Recommendations and lessons learned regarding the sharps injury prevention team

Make the team as large as possible. In many instances it may be difficult for team members to leave their work setting to attend meetings. Starting with a large team ensured enough representation at meetings for the team to make decisions. Suggest team member send substitutes if they are unable to attend meetings.

Make sure the team leader has the ability to lead!

Each area represented came with its own agenda. For instance, the phlebotomy member did not have the same concerns as nursing members when reviewing phlebotomy products. Issues and discussion can quickly get heated and “off track”. The team leader must remain focused to find products that address the majority need. Issues unrelated to the team goals may be raised during meetings. An effective team leader must know the team’s limits and stay on track.

Consider physicians as “ad hoc” or “consulting” members only.

Physicians were generally very reluctant to participate. The few physicians who did agree to join the team did not become active participants. Suggest asking physicians to attend meetings only when their input is considered vital. Consider sending team members to physicians for input rather than expecting them to attend meetings.

Consider forming a separate team for the surgical setting (operating rooms).

The majority of sharp safety devices currently available have limited use in operating room settings. The composition, needs, procedures and politics of the operating room are unique to that environment. Our institution formed a separate team after realizing that we could not adequately address the needs of the surgical setting.

Don’t forget institutional politics!

Most large institutions have at least one clinical department that generates significant revenue. Make sure that these areas have a lot of representation on your team or input into decisions. Certain areas, or even certain individuals, can have enough political influence to reverse or reject your team’s well thought out recommendations!

Make sure your team has the support of senior administration.

Without significant understanding and support from top key persons the team cannot function. For example: Your team evaluates safety intravenous catheters. The team

determines that the best device for the institution is brand X. However, Brand X is not part of the institution's group purchasing organization. The team leader may then be unable to move forward until top executive management has approved the decision.

Team leader must have some level of influence within the institution.

Team leader must be able to influence others to quickly achieve team goals. The team leader should have either significant staff authority or functional authority vested in the position by administration.

Understand who has the power to approve large capital budget increases.

Sharps safety devices will typically increase budgets two or three fold. Educate individuals who set the institution's capital budget. Make sure they understand the major increase in cost associated with implementation of sharp safety devices and plan budgets accordingly.

Educate top administrative personnel and all middle level management before selecting team members

Many administrative and management personnel do not understand the needlestick prevention laws and OSHA mandates. Lack of understanding will significantly impact ability of team to function. Nursing management must understand the OSHA mandate to ensure front line worker involvement on the committee. It is difficult to provide adequate staffing in the face of an increasing national nursing shortage. Team efforts must be given adequate priority by nursing management to allow for staff nurse involvement and attendance at meetings.

Location and timing of team meetings

Plan on monthly meetings at a minimum. Initial meetings lasted up to two hours in length with long agendas. Meetings were reduced to one hour as the team got further along in the process. We solicited from members a "best time to meet" but given that team members came from so many different areas there was no time of day, or day of the week, that accommodated everyone.

Hold meetings away from patient care areas whenever possible

The clinical setting could not interrupt team members when meetings were held in a location removed from patient care areas. Having a phone in a nearby location did allow members to answer critical pages.

Hold meetings during normal work hours

We strongly believed that the function and goals of the sharps prevention team should be embraced and supported by the institution. This is another reason for educating administration about laws and mandates related to sharps safety. Participation would probably have been dramatically reduced if members were either unpaid or had to extend their working hours to participate. Front line workers would probably not have participated if their time was unpaid.

Beware of vendors!

Vendors can take up large amounts of meeting time. Initially we invited vendors to come and give product displays to the team. We attempted to set a specific time period for presentations. Most vendors tried to extend their time allotments and wasted valuable meeting time. Suggest that vendors meet with one or two team members to demonstrate product. Have vendors provide enough samples for those team members to demonstrate at team meetings. Insist that vendors only work through the team leader or designee. Vendors were known to go soliciting uninvited through patient care areas. Vendors will take the liberty to show up at the team leader's office unannounced. Insist that vendors make appointments and go through proper channels.

Estimated staff hours involved during the formation stage of our sharps injury prevention team:

The team leader can expect to spend large blocks of time in the early formation stages of the sharps injury prevention team. Preparing educational presentations to management, sending out e-mails, establishing web page etc. is very time consuming. The majority of this work will fall to the team leader. However, good preparation will yield a positive payback once the team gets underway.

Type of Staff	Hours Spent on Phase 1
Management	
Administrative	48
Front-line	
Total	48

SHARPS INJURY PREVENTION TEAM

ENGINEERED SHARPS INJURY PROTECTION AND NEEDLESS SYSTEM PRODUCTS

Background information

In November of 2000 President Clinton signed into law a bill that amends the Occupational Safety and Health Administration (OSHA) Bloodborne Pathogen Standard to include:

1. A definition of "safer medical devices".
2. ***To require employers to identify, evaluate and use effective safer devices.***

Employers are required to review & update exposure control plans to reflect & document the consideration & implementation of appropriate safer medical devices. In the event of an occupational exposure to blood or body fluids, employers must record the type of injury, and the type and name of medical device involved in the injury.

A key factor in this new legislation is that employers must solicit input from non-managerial end-users in the evaluation process of safer devices.

SHARPS SAFETY TEAM

Team Charge

Document consideration and implementation of appropriate commercially available and effective engineering controls to eliminate or minimize exposures.

Evaluate the effectiveness of existing engineering controls.

Evaluate work practices related to the proper use of engineering controls.

Develop action plans and corrective action plans that ensure effective engineering controls are used to eliminate or minimize exposures.

Be informed of product substitutions to determine if the products match, and the effectiveness of the substitution in decreasing risk of exposure.

Except when two or more engineering controls are equally effective, the cost of the engineering control shall not be considered.

Reporting Mechanism

Team will report its actions and recommendations to the Safety Committee.

Decisions on product changes for the institution will be made by the Safety Committee or the Medical Executive Committee.

Meeting Dates

The team will meet every month starting in January 2001.

Meetings will be on the first Tuesday of every month.

Time frame: 1:00 PM - 3:00PM.

Additional meetings may be scheduled as required to meet the needs of the team.

Intranet, e-mail, and the newsletter may be used to describe items under review prior to meetings to encourage additional end-user participation.

Team meeting format

Team leader selected by the Safety Committee

Team members to be solicited from all areas with potential for bloodborne pathogen exposures. Specifically the following areas are requested to have representatives at meetings.

Division of Nursing:

- Division of Nursing:
- Advanced Practice Nurses
- Ambulatory
- Cancer Center
- Cardiac
- Education
- Emergency Department
- Home Care
- Intensive Care
- Medical
- Pediatric & Maternal Child
- Post Anesthesia Care
- Subacute Services
- Surgical
- Surgical Services

Other departments:

- Anesthesia
- Cardiac Catheterization
- Dentistry
- Dialysis

Eye Institute
Infection Control
Laboratory Medicine Phlebotomy
Medical Education
Occupational Health
Pediatrics
Pharmacy
Purchasing
Radiology
Research Department
Respiratory Therapy
Safety Department
Surgical Support Services

Both managerial and non-managerial staff persons encouraged to be members. Members should represent the various diverse settings within their departments. The number of representatives is not limited. Managers should encourage participation of non-managerial staff.

Mechanism for product review

1. Team will assign priority for safety product review. Priority is based on high use and high risk for bloodborne pathogen transmission.
2. Team leader(s) will contact vendors of similar safety products, through the purchasing department, for vendor presentations.
3. Committee will determine if a safety item(s) should be tested at the institution.
4. All areas that use the item will be determined through storeroom and purchasing records.
5. Highest use and specialty areas (e.g., peds) will be selected to test safety item.
6. All persons testing items will complete a "product evaluation form".
7. Product evaluation forms will be selected by team leader(s) from the "Training for Development of Innovative Control Technology Project" or similar designed forms.

8. Committee will review results of testing and report recommendations to the Safety Committee.

COMPLAINTS AGAINST NEW SAFETY PRODUCTS

Individuals or departments with specific complaints against a safety device should complete an engineered **sharps injury protection and needless system product complaint form.**

Complaints will be reviewed and the team will make consideration for reevaluation, or removal of a product.